

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) A computer-implemented method for associating a first block diagram with a user interface element, the method comprising:

displaying the user interface element;

receiving user input specifying the first block diagram to associate with the user interface element, wherein the first block diagram includes a plurality of nodes visually indicating functionality of the user interface element; and

associating the first block diagram with the user interface element, wherein the first block diagram is operable to control functionality of the user interface element.

2. (Original) The method of claim 1,

wherein the user interface element comprises one of:

a user interface control; or

a user interface indicator.

3. (Original) The method of claim 1,

wherein the first block diagram comprises a plurality of interconnected nodes that visually indicate functionality of the user interface element.

4. (Original) The method of claim 1, wherein said receiving user input specifying the first block diagram comprises:

arranging the plurality of nodes on a display; and

interconnecting the plurality of nodes in response to user input.

5. (Original) The method of claim 1,

wherein the first block diagram comprises a graphical data flow diagram.

6. (Original) The method of claim 1, further comprising:
including the user interface element in a program in response to user input;
executing the program; and
the first block diagram controlling functionality of the user interface element during execution of the graphical program.

7. (Original) The method of claim 6, wherein said executing the program comprises:
displaying the user interface element;
receiving user input to the user interface element during execution of the program;
and
the first block diagram controlling functionality of the user interface element in response to the user input received to the user interface element.

8. (Original) The method of claim 6, further comprising:
displaying the first block diagram after said including the user interface element in the program.

9. (Original) The method of claim 6, further comprising:
receiving user input for editing the first block diagram after said including the user interface element in the program; and
editing the first block diagram in response to the user input for editing the first block diagram;
wherein said editing the first block diagram comprises changing how first block diagram controls functionality of the user interface element.

10. (Original) The method of claim 1, further comprising:
receiving user input to the user interface element; and
the first block diagram responding to the user input received to the user interface element to control functionality of the user interface element.

11. (Original) The method of claim 10,
wherein the user input received to the user interface element is for interactively operating the user interface element without requiring execution of a program to operate the user interface element.

12. (Original) The method of claim 1, further comprising:
including the user interface element in a graphical program in response to user input;
executing the graphical program; and
the first block diagram controlling functionality of the user interface element during execution of the graphical program.

13. (Original) The method of claim 12,
wherein the graphical program includes a second block diagram;
wherein the second block diagram is separate from the first block diagram.

14. (Original) The method of claim 13,
wherein the first block diagram is accessible from the second block diagram.

15. (Currently Amended) A computer-implemented method for including a user interface element in a graphical program, the method comprising:

receiving user input specifying inclusion of the user interface element in the graphical program, wherein the user interface element has an associated first block diagram that implements first functionality of the user interface element, wherein the graphical program includes a second block diagram that implements second functionality of the graphical program, wherein the second block diagram is separate from the first block diagram associated with the user interface element;

including the user interface element in the graphical program in response to the user input;

wherein said including the user interface element in the graphical program comprises including the first block diagram associated with the user interface element in the graphical program;

wherein, during execution of the graphical program, the first block diagram associated with the user interface element is operable to control the first functionality of the user interface element and the second block diagram is operable to control the second functionality of the graphical program.

16. (Original) A computer-implemented method for creating a compound user interface control, the method comprising:

displaying a plurality of user interface elements;

receiving user input specifying a first block diagram to associate with the plurality of user interface elements, wherein the first block diagram includes a plurality of nodes visually indicating functionality of the plurality of user interface elements; and

associating the first block diagram with the plurality of user interface elements, wherein the first block diagram is operable to control functionality of the plurality of user interface elements.

17. (Original) The method of claim 16,

wherein the plurality of user interface elements comprises a plurality of primitive user interface controls provided by an application development environment.

18. (Currently Amended) A computer-implemented method for executing a graphical program, the method comprising:

receiving user input to a user interface element of the graphical program, wherein the user interface element has an associated block diagram, wherein the graphical program includes a main block diagram, wherein the main block diagram is separate from the block diagram associated with the user interface element;

executing the block diagram associated with the user interface element in response to the user input to the user interface element;

wherein said executing the block diagram comprises controlling functionality of the user interface element in response to the user input to the user interface element.

19. (Original) A memory medium for associating a first block diagram with a user interface element, the memory medium comprising program instructions executable to:

display the user interface element;

receive user input specifying the first block diagram to associate with the user interface element, wherein the first block diagram includes a plurality of nodes visually indicating functionality of the user interface element; and

associate the first block diagram with the user interface element, wherein the first block diagram is operable to control functionality of the user interface element.

20. (Original) The memory medium of claim 19,

wherein the first block diagram comprises a plurality of interconnected nodes that visually indicate functionality of the user interface element.

21. (Previously Presented) The memory medium of claim 19, further comprising program instructions executable to:

include the user interface element in a program in response to user input; and
execute the program;

wherein the first block diagram is operable to control functionality of the user interface element during execution of the graphical program.

22. (Original) The memory medium of claim 21, wherein said executing the program comprises:

displaying the user interface element;

receiving user input to the user interface element during execution of the program;

and

wherein the first block diagram is operable to control functionality of the user interface element in response to the user input received to the user interface element.

23. (Original) The memory medium of claim 19, further comprising program instructions executable to:

receive user input to the user interface element;

wherein the first block diagram is operable to respond to the user input received to the user interface element to control functionality of the user interface element.

24. (Currently Amended) A memory medium for including a user interface element in a graphical program, the memory medium comprising program instructions executable to:

receive user input specifying inclusion of the user interface element in the graphical program, wherein the user interface element has an associated block diagram that implements first functionality of the user interface element, wherein the graphical program includes a main block diagram that implements second functionality of the graphical program, wherein the main block diagram is separate from the block diagram associated with the user interface element;

include the user interface element in the graphical program in response to the user input;

wherein said including the user interface element in the graphical program comprises including the block diagram associated with the user interface element in the graphical program;

wherein, during execution of the graphical program, the block diagram associated with the user interface element is operable to control the first functionality of the user interface element and the main block diagram is operable to control the second functionality of the graphical program.

25. (Currently Amended) A memory medium for executing a graphical program, the memory medium comprising program instructions executable to:

receive user input to a user interface element of the graphical program, wherein the user interface element has an associated block diagram, wherein the graphical program includes a main block diagram, wherein the main block diagram is separate from the block diagram associated with the user interface element;

execute the block diagram associated with the user interface element in response to the user input to the user interface element;

wherein said executing the block diagram comprises controlling functionality of the user interface element in response to the user input to the user interface element.

26. (Previously Presented) The method of claim 1,
wherein the first block diagram is operable to change characteristics affecting the appearance of the user interface element.

27. (Previously Presented) The method of claim 1,
wherein the first block diagram is operable to change a manner in which data is displayed in the user interface element.

28. (Previously Presented) The method of claim 1, further comprising:
copying the user interface element from a first graphical program to a second graphical program;
programmatically including the first block diagram in the second graphical program in response to said copying.

29. (Previously Presented) The method of claim 1, further comprising:
copying the user interface element from a first graphical program to a second graphical program;
programmatically associating the first block diagram with the second graphical program in response to said copying.

30. (Currently Amended) The method of claim 15,

wherein, during execution of the graphical program, the first block diagram associated with the user interface element is operable to change characteristics affecting the appearance of the user interface element.

31. (Currently Amended) The method of claim 15,

wherein, during execution of the graphical program, the first block diagram associated with the user interface element is operable to change a manner in which data is displayed in the user interface element.

32. (Previously Presented) The method of claim 16,

wherein the first block diagram is operable to control an appearance of the plurality of user interface elements.

33. (Previously Presented) The method of claim 18,

wherein said executing the block diagram comprises controlling an appearance of the user interface element in response to the user input to the user interface element.

34. (Previously Presented) The memory medium of claim 19,

wherein the first block diagram is operable to change characteristics affecting the appearance of the user interface element.

35. (Previously Presented) The memory medium of claim 19,

wherein the first block diagram is operable to change a manner in which data is displayed in the user interface element.

36. (Previously Presented) The memory medium of claim 19, wherein the program instructions are further executable to:

copy the user interface element from a first graphical program to a second graphical program;

programmatically include the first block diagram in the second graphical program in response to said copying.

37. (Previously Presented) The memory medium of claim 19, wherein the program instructions are further executable to:

copy the user interface element from a first graphical program to a second graphical program;

programmatically associate the first block diagram with the second graphical program in response to said copying.

38. (Previously Presented) The memory medium of claim 24, wherein, during execution of the graphical program, the block diagram associated with the user interface element is operable to control an appearance of the user interface element.

39. (Previously Presented) The memory medium of claim 25, wherein said executing the block diagram comprises controlling an appearance of the user interface element in response to the user input to the user interface element.

40. (New) The method of claim 15, wherein the second block diagram is operable to provide data to the user interface element;

wherein the first block diagram associated with the user interface element is operable to receive the data from the second block diagram and process the data.

41. (New) The method of claim 15, wherein the second block diagram is operable to provide data to the user interface element;

wherein the first block diagram associated with the user interface element is operable to receive the data from the second block diagram and control a visual appearance of the user interface element based on the data.

42. (New) The method of claim 15,

wherein the first block diagram associated with the user interface element is operable to receive user input to the user interface element and process the user input.

43. (New) The method of claim 42,
wherein said processing the user input comprises controlling a visual appearance of the user interface element based on the user input.

44. (New) The memory medium of claim 24,
wherein the main block diagram is operable to provide data to the user interface element;

wherein the block diagram associated with the user interface element is operable to receive the data from the main block diagram and process the data.

45. (New) The memory medium of claim 24,
wherein the main block diagram is operable to provide data to the user interface element;

wherein the block diagram associated with the user interface element is operable to receive the data from the main block diagram and control a visual appearance of the user interface element based on the data.

46. (New) The memory medium of claim 24,
wherein the block diagram associated with the user interface element is operable to receive user input to the user interface element and process the user input.

47. (New) The memory medium of claim 46,
wherein said processing the user input comprises controlling a visual appearance of the user interface element based on the user input.